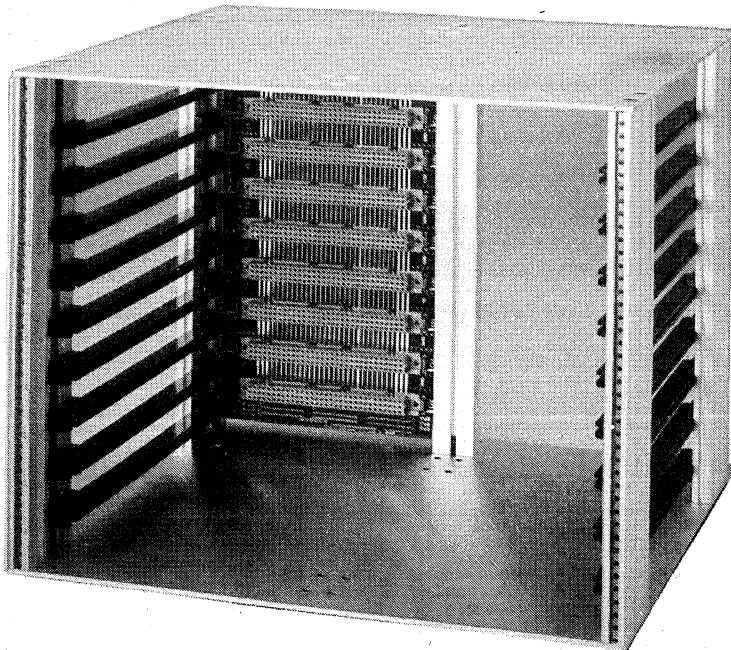




iSBC® PKG/606 iSBC PKG/609 MULTIBUS® II CARD CAGE ASSEMBLIES

- Available in Two Sizes to Hold Up to 6 or 9 MULTIBUS® II Boards
- Designed to Mount Inside a Chassis or Other Enclosure
- Accommodates Intel iSBC® PKG/902 and iSBC® PKG/903 2 and 3 Slot ILBX™ II Backplanes
- All Lines Fully Terminated per the iPSB MULTIBUS II Specification
- Assembly Uses Aluminum Extrusion Construction for Strength and Rigidity
- Uses a 6 Layer Parallel System Bus (iPSB) Backplane

The iSBC PKG/606/609 series of cardcages are designed to mount and interconnect up to 6 or 9 MULTIBUS II boards for small to medium size advanced MULTIBUS II microcomputer systems. The cardcages are compact in size and easily mount in standard or custom enclosures. Extra-wide support extrusions and heavy duty endplates help make the iSBC PKG/606/609 cardcage assemblies especially suited for installation in systems located in high vibration or high shock environments. Installed in the cardcage assembly is a 6 layer iPSB backplane that utilizes separate power and ground planes and fully terminates all signal lines. This layout minimizes system noise and ensures reliable operation even in a fully loaded, multiprocessor-based system.



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FUNCTIONAL DESCRIPTION

Mechanical Features

The cardcages accommodate up to 6 (ISBC PKG/606) or 9 (ISBC PKG/609) MULTIBUS II boards spaced at 0.8 inch centers. The assemblies are designed to hold "double high" (6U) Euro form-factor boards (233.4 mm high x 220 mm deep) or a mixture of "single high" (3U) and "double high" boards using additional hardware (not supplied). Each installed board is held in place by two screws supplied as part of the board retainer hardware.

The cardcage frame is built using five support extrusions and two aluminum end plates as shown in figure 1. Both cardcages are 10.5" wide and 10.1" deep and vary in height according to model (see specifications section).

The cardcages are designed to mount inside chassis or other enclosures and may be installed so that the MULTIBUS II boards load either horizontally or vertically in the unit. All assembly hardware is counter-sunk allowing the cardcages to be mounted flush against any internal chassis surface.

A Parallel System Bus (iPSB) backplane is mounted to the P1 side of the assembly, and one or more iLBX™ II backplanes (not supplied) can be mounted to the P2 side.

Electrical Features

The iPSB backplane uses a 6 layer design with separate power and ground layers and a signal routing scheme which minimizes ringing, crosstalk, and

capacitive loading on the bus. Mounted on the backplane are 6 or 9, 96-pin, female DIN connectors (depending on model), bus termination resistors, decoupling capacitors, and power terminals. Press-fit technology is used throughout. The PC board is UL recognized for flammability. The card cages themselves are UL recognized components.

Single In-line Package (SIP) style resistors are used to terminate all address, clock, data, and control lines. Each termination consists of two resistors which connects the line to +VCC and ground. Different size resistors are used according to the type of driver connected to the line in an operating system.

The DIN type connectors are female, 96 pins, fully gold plated, and meet IEC standard 603-2-IEC-C096F. The connectors are mounted on 0.8" centers to match Intel's iPSB (Parallel System Bus) MULTIBUS II backplanes and are keyed to ensure proper mating to the MULTIBUS II board. The connector can provide up to 9 amps of current at +5V to each MULTIBUS II board in addition to the current available over the iLBX II backplane.

Screw terminals on the backplane are provided for connection to +5V, $\pm 12V$ power and ground. In addition, an extra +5V terminal is provided for connection to a backup battery for memory protection during power fail conditions. These terminals, each of which can handle up to 25 amps of current at 55°C, provide a simple and highly reliable connection method to the system power supply.

The first slot position is designed to accept the Central Services Module (CSM) MULTIBUS II board. All other slots can accept any combination of MULTIBUS II boards.

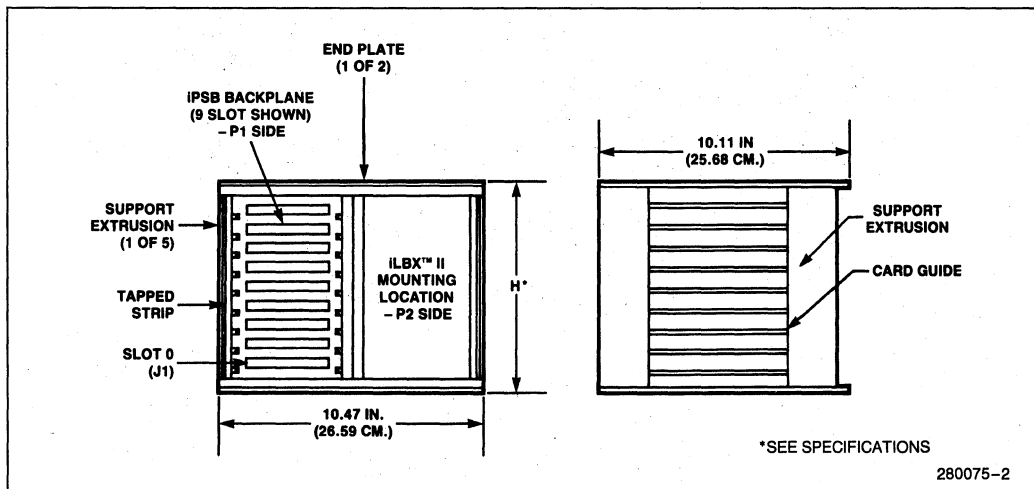


Figure 1. Cardcage Assembly Dimensions (ISBC® PKG/609 shown)

SPECIFICATIONS

Mechanical

Specification	ISBC® PKG/606 Cardcage	ISBC® PKG/609 Cardcage
Board Capacity	6	9
Dimensions		
Height	15.20 cm (5.98 in.)	21.20 cm (8.38 in.)
Width	26.59 cm (10.47 in.)	26.59 cm (10.47 in.)
Depth	25.93 cm (10.21 in.)	25.93 cm (10.21 in.)
Weight	4 lbs. (1.8 kg)	5 lbs. (2.3 kg)
Board Spacing	0.8 in. (20.3 cm)	
Mounting Hole Locations	See Figure 2	
Construction Materials, Cardcage Frame	Aluminum extrusions and end plates, nylon card guides	
Construction Method iPSB Backplane	Six layer backplane with separate VCC and ground layers; all connectors, power terminals, and resistor/capacitor sockets are press-fit into the backplane	
Connector Type	96 pin "DIN" female, gold plated, meets IEC standard 603-2-IEC-C096-F	

Electrical

iPSB Backplane—Meets Intel MULTIBUS II specification No. 146077 for board dimensions, layout, signal line termination, and transmission characteristics

Power Connections—Type: Screw terminal block, AMP P/N 55181-1, Winchester P/N 121-25698-2, or equivalent

Quantity of Power Terminals and Current Rating:

Voltage	ISBC® PKG/606 Cardcage		ISBC® PKG/609 Cardcage	
	Quantity	Current (amps)	Quantity	Current (amps)
+5	3	54	4	81
+12	1	12	1	18
-12	1	12	1	18
+5BB	1	12	1	18
GND	4	78	5	135

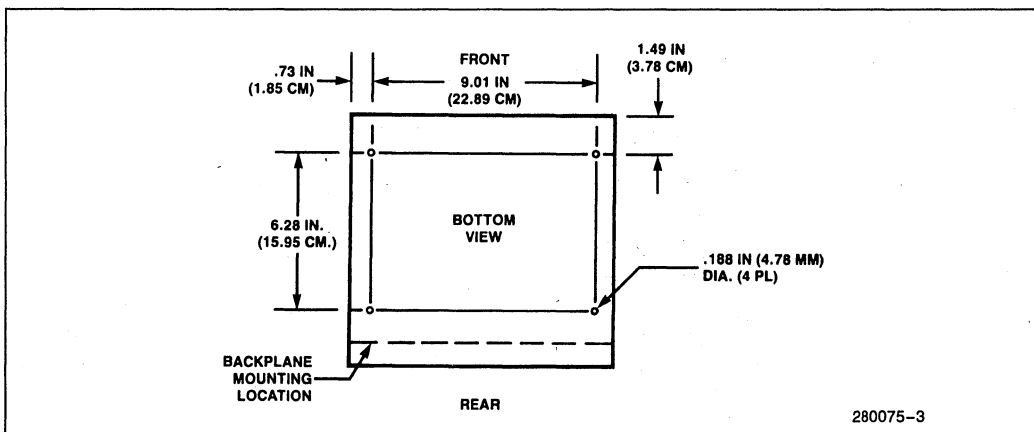


Figure 2. Mounting Hole Locations



Mating Connection: No. 6 locking spade or ring
tongue lug

Maximum current available per slot:

Voltage	Current
+ 5V	9A
+ 12V	2A
- 12V	2A
+ 5BB	2A

Operating Environment:

0–55°C (at 25 amps per power terminal);
0–70°C (at ≤ 18 amps per power terminal);
0% to 95% relative humidity, non-condensing;
0–10,000 ft. altitude.

Reference Manual—MULTIBUS II Cardcage As-
sembly and iLBX II Back-
plane User's Guide, P/N
146709-001 (supplied).

ORDERING INFORMATION

Part Number	Description
iSBC PKG/606	6 slot MULTIBUS II Cardcage Assembly
iSBC PKG/609	9 slot MULTIBUS II Cardcage Assembly